

Science Expo reaches thousands of students

Photo: Student audience

For the past seven years, INL and its partner, the Museum of Idaho, have brought science and engineering to life for thousands of students - grades six through eight - with the INL Science and Engineering Expo.

Through this annual event, INL partners with many businesses and industries, professional societies, universities and other government agencies to bring new developments in science and state-of-the-art technology to the public. Exhibitors and presenters stimulate curiosity, and inform and teach through engaging hands-on activities and experiments, interactive demonstrations, simulations and crowd-pleasing presentations. All activities are linked to the National Science Education Standards and correlated Idaho State Achievement Strands II-X.

Eager students volunteer during one of The Great PHEOC's demonstrations.

The theme for the 7th Annual INL Science and Engineering Expo, held Sept. 20-22, was "I Spy - The Magic of Science." The Expo featured Al Stawicki, The Great PHEOC. Stawicki is a mystifying science magician who involves his audiences in problem-solving situations filled

with laughs, educational lessons and unforgettable, magical entertainment. (PHEOC is an acronym for the scientific method of problem hypothesis, experiment, observation and conclusion.)

The Great PHEOC uses his amateur magician skills and 30 years of math and science teaching wisdom to make science fun for students. He interacts with the audience by asking questions, allowing some students to come on stage to help perform magic tricks, and sends them away at the end of his performance chanting, "Science is fun!"

Another 30 demonstrations and interactive exhibits were set up at the Expo to encourage young people to discover the "magical" concepts of science, mathematics, engineering and technology. Interactive demonstrations included principles of light, optics and electromagnetism. One exhibit featured mouse traps acting as U-235 atoms and ping-pong balls representing neutrons to depict a nuclear chain reaction. A geothermal exhibit showed how hot water can be brought to the land surface and used to make electricity and heat buildings. LIGO, the Laser Interferometer Gravitational-wave Observatory, demonstrated how gravitational waves work and provided a variety of experiments with waves.

While geared toward students in grades six through eight, the Expo offers a variety of activities and exhibits for learners of all ages. This year's two student days, Sept 20 and 21, brought 24 schools and more than 2,800 students to the Expo. Some students enjoyed the Expo so much they brought family members back for Family Day, Sept 22. An estimated 3,000 people attended Family Day.

Idaho National Laboratory has a strong commitment to education and community outreach efforts. The Expo offers a high-impact, inquiry-based education and community outreach experience that exposes students, their teachers and parents to a wide and diverse range of potential careers in science, mathematics, engineering and technology.

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Photo: Student participation

Hands-on activities engage students at one of the many interactive displays.